



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0844; Project Identifier AD-2021-00689-T; Amendment 39-22028; AD 2022-09-08]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 787-8, 787-9, and 787-10 airplanes. This AD was prompted by reports of a missing shim at a joint common to the main torque box (MTB) skin panel and rear spar root fitting. This AD requires inspecting the MTB skin panel and rear spar root fitting for cracking and delamination, and applicable on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety

Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0844.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0844; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Joseph Hodgin, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3962; email: joseph.j.hodgin@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 787-8, 787-9, and 787-10 airplanes. The NPRM published in the *Federal Register* on October 28, 2021 (86 FR 59665). The NPRM was prompted by reports of a missing shim at a joint common to the MTB skin panel and rear spar root fitting. In the NPRM, the FAA proposed to require inspecting the MTB skin panel and rear spar root fitting for cracking and delamination, and applicable on-condition actions. The FAA is issuing this AD to address the omission of a shim between the MTB skin panel and rear spar flange at the attachment to the root fitting. This condition, if not addressed, could result in a reduction

in fatigue performance of the MTB skin panel and rear spar root fittings, which could affect the structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Air Line Pilots Association, International (ALPA), Boeing, an individual, and United Airlines, who supported the NPRM without change.

The FAA received additional comments from Avianca Airlines. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Substitute Approval Form for Alternative Method of Compliance (AMOC) Letter

Avianca Airlines (AVA) proposed that paragraph (h) of the proposed AD be revised to require an 8100-9 approval form, rather than an AMOC, for a repair after contacting Boeing. AVA stated that the time delay required to obtain an AMOC letter affects the operational return to service of the affected aircraft and that an 8100-9 form is already an approved document that certifies compliance with airworthiness standards.

The FAA does not agree with this request. An FAA Form 8100-9, which is both a repair data approval and AMOC approval, may be issued by the Boeing Company Organization Designation Authorization (ODA), provided it has been authorized by the Manager, Seattle ACO Branch, FAA, as required by paragraph (i)(3) of this AD. If the ODA does not have authorization from the Manager, Seattle ACO Branch, FAA, then a separate AMOC approval is required. This AD has not been changed with regard to this request.

Request to Allow Later Approved Revisions of the Service Bulletin

AVA requested that the proposed AD be revised to allow later approved revisions of Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021, to be used for compliance with the proposed AD.

The FAA does not agree with the request to allow later approved revisions. The FAA may not refer to any document that does not yet exist in an AD. In general terms, the FAA is required by Office of the Federal Register (OFR) regulations for approval of materials incorporated by reference, as specified in 1 CFR 51.1(f), to either publish the service document contents as part of the actual AD language; or submit the service document to the OFR for approval as referenced material, in which case the FAA may only refer to such material in the text of an AD. The AD may refer to the service document only if the OFR approved it for incorporation by reference. See 1 CFR part 51.

To allow operators to use later revisions of the referenced document (issued after publication of the AD), either the FAA must revise the AD to reference specific later revisions, or operators must request approval to use later revisions as an alternative method of compliance with this AD under the provisions of paragraph (i) of this AD.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021. This service information specifies procedures for an ultrasonic test for cracking and delamination of the skin panel, an open hole high frequency eddy current (HFEC) inspection for cracking of the rear spar root fitting at the fastener holes common to the MTB skin panel and rear spar root fitting interface, and a surface HFEC inspection for cracking of visible rear spar root fitting surface areas, and applicable on-condition actions. On-condition actions include measurement of the gap between the MTB skin panel and the rear spar flange, installation of a new shim between

the MTB skin panel and the rear spar flange, and installation of new fasteners in the MTB skin panel and the rear spar flange. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 91 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	14 work-hours X \$85 per hour = \$1,190	\$0	\$1,190	\$108,290

The FAA estimates the following costs to do any necessary measurements and installations that would be required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Gap measurement	1 work-hour X \$85 per hour = \$85	\$0	\$85
Installation	10 work-hours X \$85 per hour = \$850	\$11,330	\$12,180

The FAA has received no definitive data on which to base the cost estimates for the repairs specified in this AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-09-08 The Boeing Company: Amendment 39-22028; Docket No. FAA-2021-0844; Project Identifier AD-2021-00689-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 787-8, 787-9, and 787-10 airplanes, certificated in any category, as specified in Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021.

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by reports of a missing shim at a joint common to the main torque box (MTB) skin panel and rear spar root fitting. The FAA is issuing this AD to address the omission of a shim between the MTB skin panel and rear spar flange at the attachment to the root fitting. This condition, if not addressed, could result in a reduction

in fatigue performance of the MTB skin panel and rear spar root fittings, which could affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin B787-81205-SB550011-00, Issue 001, dated May 18, 2021, which is referred to in Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021.

(h) Exceptions to Service Information Specifications

Where Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021, specifies contacting Boeing for repair instructions: This AD requires doing the repair before further flight using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in

paragraph (j) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

For more information about this AD, contact Joseph Hodgin, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3962; email: joseph.j.hodgin@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin B787-81205-SB550011-00 RB, Issue 001, dated May 18, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd.,

MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet

<https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on April 15, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-11806 Filed: 6/1/2022 8:45 am; Publication Date: 6/2/2022]